Abstract of WO0157610 (A2)

Disclosed are an Internet advertisement system including a plurality of user computers connected to the Internet, a system server for providing diverse information and diverse link means to the user computers via the Internet to display the information on the user computers along with information provided via the link means, and a plurality of information providing servers connected to the system server.; Each of the user computer includes a monitor consisting of a main display and a sub display arranged at a portion other than the monitor portion where the main display is arranged, the sub display being adapted to display a plurality of link means so as to allow data, linked in response to a selection of desired link means by the user, to be displayed on the main display, thereby allowing the user to always view advertisements displayed on the sub display, so that an improvement in advertisement effect is achieved.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 August 2001 (09.08.2001)

PCT

(10) International Publication Number
WO 01/57610 A2

(51) International Patent Classification[7]: G06F

(21) International Application Number: PCT/KR00/00643

(22) International Filing Date: 19 June 2000 (19.06.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2000/5450 3 February 2000 (03.02.2000) KR
2000/25884 15 May 2000 (15.05.2000) KR

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(81) Designated States *(national)*: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 01/57610 A2

(54) Title: SYSTEM AND METHOD FOR INTERNET ADVERTISEMENT USING MONITOR INCLUDING MAIN DISPLAY AND SUB DISPLAY

(57) Abstract: Disclosed are an Internet advertisement system including a plurality of user computers connected to the Internet, a system server for providing diverse information and diverse link means to the user computers via the Internet to display the information on the user computers along with information provided via the link means, and a plurality of information providing servers connected to the system server. Each of the user computer includes a monitor consisting of a main display and a sub display arranged at a portion other than the monitor portion where the main display is arranged, the sub display being adapted to display a plurality of link means so as to allow data, linked in response to a selection of desired link means by the user, to be displayed on the main display, thereby allowing the user to always view advertisements displayed on the sub display, so that an improvement in advertisement effect is achieved.

SYSTEM AND METHOD FOR INTERNET ADVERTISEMENT USING MONITOR INCLUDING MAIN DISPLAY AND SUB DISPLAY

Technical Field

The present invention relates to a system and method for Internet advertisement using a monitor including a main display and a sub display, and more particularly to a system and method for Internet advertisement using a monitor including a main display and a sub display arranged at a portion of the monitor other than the monitor portion where the main display is arranged, the sub display being adapted to display a plurality of link means so as to allow data, linked in response to a selection of desired link means by the user, to be displayed on the main display, thereby allowing the user to always view advertisements displayed on the sub display, irrespective of whether or not a web page is displayed with a web browser such as Internet Explorer or Netscape on the main display of the monitor, so that an improvement in advertisement effect is achieved.

Background Art

During recent years there has been a rapid increase in the number of users accessing the Internet. Such an increase has resulted in an activation of advertisement on the Internet. By virtue of the recent increase in the number of Internet users, who may be potential consumers, Internet advertising markets have rapidly grown within a relatively short period of time, as compared to traditional media such as TV, newspapers, and magazines.

A variety of Internet advertisement methods have

been proposed. For example, an advertising method using banners has been proposed. In accordance with this method, an advertisement content is displayed in the form of a graphic box, so called a "banner", between regions of text information on a screen of the user's monitor when the user has access to a desired site on the Internet. Where the user clicks the displayed banner, a detailed advertisement may be displayed. Otherwise, the user is automatically connected to the web site of the banner advertiser. In addition, there are advertising methods such as a cooperated advertising method, in which each of sites having a cooperating relation with one another provides links allowing the user to have access to the other sites, a pop-up advertising method, in which an advertisement content is displayed every time the user has access to a new site, and an E-mail advertising method in which an E-mail containing an advertisement content is periodically and unsolicitedly sent to the mailing account of the Internet user.

In accordance with the above mentioned conventional Internet advertising methods, however, an advertisement is allowed to be shown to the user only under the condition in which he has access to an associated site or clicks an associated banner. Once the user exits the site, the advertisement disappears. For this reason, only a temporary advertising effect is provided. Thus, the conventional Internet advertising methods involve a degradation in advertising effect. Furthermore, the user may be rather reluctant to view the displayed advertisement because the advertisement is unilaterally transmitted to the user. For this reason, an adverse advertising effect may rather be generated.

Also, in most of the conventional Internet advertising methods, the advertisement may consist of a text, a graphic of a still image, or a simple animation because of a limited advertisement display region and a limited advertisement display time, so that it is irregular and rough. For this reason, there is a limitation in attracting user's attention, thereby resulting in a degradation in advertising effect. Due to the advertisement display region, the working region for the user is correspondingly reduced. This causes inconvenience to the user.

Disclosure of the Invention

Therefore, the present invention has been made in view of the above mentioned problems involved in the conventional advertising methods, and an object of the invention is to provide a system and method for Internet advertisement using a monitor including a main display and a sub display arranged separately from the main display so as not to interfere with graphical user interface (GUI) environment for handling the display of information while eliminating limitations in terms of time and space, the sub display also being provided with functions for a user's convenience and functions for advertising schedule management, thereby allowing a systematic and dynamic advertising broadcasting to be implemented.

In accordance with one aspect, the present invention provides an Internet advertising system comprising: a plurality of user computers configured to have access to the Internet, each of the user computer including a monitor, which serves as display means and consists of a main display for displaying a main

processing content of a program used by a user, and a sub display for displaying a graphical user interface environment of the user computer, a plurality of link means adapted to allow the user computer to be linked to web pages respectively associated with the link means, and an image processing unit for driving the main display and the sub display; a system server for providing diverse information and diverse link means to each of the user computers via the Internet to display the information on the sub display along with information provided via the link means; and a plurality of information providing servers connected to the system server, each of the information providing servers being an object, by which each of the user computers is linked to the link means.

In accordance with another aspect, the present invention provides an Internet advertising method comprising the steps of: constructing a network using user computers each including a monitor consisting of a sub display adapted to display advertisement data and a main display adapted to display a main processing content of the associated user computer, a plurality of information providing servers adapted to provide advertisement data and content information, and a system server adapted to transmit the advertisement data and content information, provided from the information providing servers, to the user computers, thereby allowing the transmitted data and information to be displayed on respective sub displays of the user computers; registering diverse information and diverse advertisement data, to be displayed on the sub display included in each of the user computers, supplied from the information providing servers; registering, as

subscribers, users having access to the system server; and transmitting the registered advertisement data to the user computers, thereby displaying the advertisement data on respective sub displays of the user computers.

In accordance with the present invention, the monitor of each user computer consists of a main display and a sub display respectively displaying different contents. Advertisements and link means are displayed on the sub display. By virtue of such a configuration, the user can be easily linked to an information providing server via an associated advertisement or link means displayed on the sub display. In accordance with the linking, desired information is displayed on the main display, so that the user can acquire that information. Accordingly, it is possible to improve the advertising efficiency of the advertisements displayed on the sub display. The link means can also be used as advertising means. In this case, a maximum advertising effect is obtained.

Brief Description of the Drawings

The above objects, and other features and advantages of the present invention will become more apparent after a reading of the following detailed description when taken in conjunction with the drawings, in which:

Fig. 1 is a block diagram illustrating the configuration of an Internet advertising system using a monitor including a main display and a sub display in accordance with the present invention;

Fig. 2 is a block diagram illustrating a user computer to which the Internet advertising system according to the present invention is applied;

Fig. 3 is a flow chart illustrating an Internet advertising method using the monitor according to the present invention;

Fig. 4 is a flow chart illustrating a method for processing advertisement data, depending on whether or not the user computer is in an on-line state, in accordance with the present invention;

Fig. 5 is a flow chart illustrating a procedure in which the user uses the sub display in accordance with the present invention;

Fig. 6 is a method for processing advertisement data provided by an advertiser in accordance with the present invention;

Fig. 7 is a block diagram illustrating a format of the advertisement data;

Fig. 8 is a flow chart illustrating a method for using the data field of the advertisement data shown in Fig. 7;

Fig. 9 is a view illustrating the configuration of a window displayed on the sub display in accordance with the present invention;

Fig. 10 is a view illustrating a web page displayed on the main display in response to a selection of a banner, displayed on the sub display, to which the web page is linked; and

Fig. 11 is a view illustrating a video window displayed on the main display in a state enlarged from a video window displayed on the sub display in response to a selection of the video window on the sub display.

Best Mode for Carrying Out the Invention

Hereinafter, the present invention will be described in more detail with reference to preferred

embodiments illustrated in the annexed drawings.

As shown in Figs. 1 and 2, the Internet advertising system according to the present invention includes a plurality of user computers 10 which are configured to have access to the Internet. Each user computer 10 includes, as its display means, a monitor 70 which consists of a main display 74 for displaying the main processing content of a program used by the user, and a sub display 72 for displaying the graphical user interface (GUI) environment of the computer 10, and a plurality of link means adapted to allow the user computer 10 to be linked to web pages associated with those link means. The Internet advertising system also includes a system server 30 for providing diverse information and diverse link means to each user computer 10 via the Internet, thereby not only displaying such information, but also displaying information provided via those link means, and a plurality of information providing servers 40 and 44 connected to the system server 30. The information providing servers 40 and 44 are objects, by which the user computer 10 is linked to the link means, respectively. The information providing servers 40 and 44 have information databases (DBs) 42 and 46, respectively.

Each user computer 10 basically has a configuration similar to that of a general computer running a web browser. However, the configuration of each user computer 10 is mainly different from that of the general computer in that the monitor 70 consists of the main display 74 and the sub display 72, as mentioned above. In accordance with an embodiment of the present invention, the main display 74 is made of a cathode ray tube (CRT) whereas the sub display 72 is made of a

liquid crystal display (LCD). Of course, other configurations may be used for those main and sub displays.

As shown in Fig. 2, each user computer 10 includes a control unit 50 which may be a central processing unit (CPU), and an image processing unit 60 adapted to drive the monitor 70 including the main display 74 and sub display 72. The image processing unit 60 has a function for separating display data outputted from the control unit 50 into those to be displayed on the main display 74 and those to be displayed on the sub display 72, and outputting those separate display data to the main display 74 and sub display 72, respectively.

The image processing unit 60 is a video graphic adapter (VGA). For the image processing unit 60, a single VGA card may be used which has a function for controlling two monitors. Alternatively, two VGA cards each adapted to drive only one monitor may be mounted in the user computer 10.

A camera 76, which is adapted to pick up an image of an object, is mounted to the monitor 70 at the left side of the sub display 72 arranged at the upper portion of the monitor 70. The camera 76 is electrically connected to the control unit 50. A microphone 78 is also arranged at the right side of the sub display 72. The microphone 78 is electrically connected to a sound card 64 included in the user computer 10.

The user computer 10 also includes a TV/radio receiver card 58 for receiving TV or radio signals. A TV signal, which is received by the user computer 10 via the TV/radio receiver card 58, may be displayed on the sub display 72 or main display 74 in accordance with a selection made by the user.

In Fig. 2, the reference numeral 52 denotes a communication module such as a modem, 54 an input means such as a keyboard or a mouse, 56 a memory such as a RAM or a hard disk drive (HDD), and 66 a speaker for outputting sound signals outputted from the sound card 64.

The system server 30 includes a news server 31 for accessing diverse web sites of news providers to search for news, a news database (DB) 23 for storing news generated from the news server 31, an advertisement server 33 for supplying, to the user computer, data of advertisements displayed on the sub display 72 of the user computer 10, an advertisement DB 34 for storing advertisement data supplied from the advertisement server 33, a media server 35 for providing audiovisual data to be displayed on or selected via the sub display 72, and a media DB 36 connected to the media server 35 and adapted to provide media data to the media server 35. The system server 30 also includes a web server 20 for connecting the system server 30 to the Internet and for operating a home page for the user, a home page DB 37 for storing data required for the operation of the home page, and a subscriber DB 38 for storing information about subscribers who are registered ones of users connected via respective user computers 10 thereof to the system server 30.

The information providing servers, which are denoted by the reference numerals 40 and 44, include a plurality of advertiser servers 40 operated by respective advertisers supplying advertisements, and a plurality of content providing servers 44 for providing content information. An advertiser DB 42 is connected to each of the advertiser servers 40 in order to store

advertisement data for the advertiser server 40. A content DB 46 is also connected to each of the content providing servers 44 to store content information for the content providing server 44.

The present invention also provides an Internet advertising method which is carried out using the above mentioned Internet advertising system including the monitor consisting of the main and sub displays in accordance with the present invention. Now, this Internet advertising method will be described in detail.

In order to carry out the Internet advertising method using the monitor consisting of the main and sub displays in accordance with the present invention, it is first necessary to construct a network using the user computers 10 each including the monitor 70 consisting of the sub display 72 adapted to display advertisement data and the main display 74 adapted to display the main processing content of the associated user computer 10, the information providing servers 40 and 44 for providing advertisement data and content information, and the system server 30 adapted to transmit the advertisement data and content information, provided from the information providing servers 40 and 44, to the user computers 10, thereby allowing the transmitted data and information to be displayed on respective sub displays 72 of the user computers 10.

As shown in Fig. 3, the Internet advertising method involves step S10 for registering diverse information and diverse advertisement data, to be displayed on the sub display 72 of each user computer 10, supplied from the information providing servers 40 and 44, step S11 for registering, as subscribers, users having access to the system server 30, step S12 for

setting display setting data, such as display position, display size, and display time, for each advertisement data, registered at step S10, in association with the display of the advertisement data on the sub display 72 of each user computer 10, step S13 for transmitting and loading the set display setting data, step S14 for transmitting the registered advertisement data to the sub display 72 of each user computer 10, and controlling the user computer 10 to display the transmitted advertisement data on the sub display 72, step S15 for allowing the user to select a desired one of diverse objects displayed on the sub display 72 of the associated user computer 10, and step S16 for displaying data or a web page, associated with the object selected by the user, on the main display 74 of the associated user computer 10.

In accordance with the present invention, a desired amount of advertisement data may be stored in the auxiliary memory device, such as the HDD, of the memory 56 in the user computer 10 during a reception of the advertisement data via the Internet. In this case, it is possible to load the stored advertisement data in a communication cut-off state to display the advertisement data. Thus, an advertising effect can be obtained not only in an on-line state, but also in an off-line state.

In accordance with the present invention, the constituting members of the network are classified into advertisers making requests for advertisements, a system server operator loading advertisements for a consideration, and users (subscribers) connected to the system server 30 to view information, including advertisements, supplied by the system server 30.

In accordance with the present invention, advertisements are always displayed on the sub screen 72 of the user computer 10 linked to the system server 30 via the Internet. The advertisement data displayed on the sub display 72 may be periodically varied in accordance with an advertisement schedule management program.

Advertisements are displayed on the sub display 72 of the user computer 10 in accordance with an advertisement displaying method illustrated in Fig. 4.

In accordance with this advertisement displaying method, it is first determined at step S20, in response to a turn-on state of the user computer 10, whether or not the user computer 10 is in an on-line state thereof. Where the user computer 10 is in an off-line state thereof, the control procedure proceeds to step S201. On the other hand, where the user computer 10 is in its on-line state, an attempt is made, at step 21, to connect the user computer 10 to the Internet via an ISP server providing an Internet communication network. At step 21, a user authentication is executed. That is, the user computer 10 is connected to an authentication system running on the web server 20 of the system server 30 so that the authentication system determines whether or not the user is allowed to use services provided by the system server 30.

Where the user is determined to be an authenticated subscriber, it is then determined, at step S22, whether or not updating of advertisement data is made. Where updating of advertisement data is made, the control procedure proceeds to step S23. At step S23, the advertisement server 33 transmits advertisement data to the user computer 10 (Step S22). The user computer 10

then receives the transmitted advertisement data (Step S23). On the other hand, where no updating of advertisement data is made, the control procedure proceeds to step S201.

The advertisement data received at step S23 is then partially or completely stored in the memory 56, such as an HDD, of the user computer 10 (Step S24). Simultaneously, the received advertisement data is loaded on the user computer 10 (Step S25). In accordance with the loading, the advertisement data is always displayed on the sub display 72 (Step S26). The above procedure is periodically repeated in accordance with the advertisement schedule management program so as to execute updating of advertisement data displayed on the sub display 72.

When the user computer 10 is subsequently switched to an off-line state, in which reception of advertisement data is impossible, due to a communication obstacle or communication cut-off, step S201 is also executed. At step 201, the advertisement data stored in the memory 56, such as an HDD, of the user computer 10 is loaded so that it is displayed on the sub display 72.

As shown in Fig. 7, each received advertisement consists of a basic part 80 and an extension part 85. The basic part 80 of the advertisement contains fixed information, that is, an advertisement code 81, advertisement data 82, which is data, such as a picture or characters, to be practically displayed on the sub display 72, and link data 83 for calling a web page for providing detailed information associated with the advertisement in response to an associated input signal from the user.

The extension part 85 of the advertisement

contains variable information, that is, time data 86 providing a reference for transmission of the advertisement schedule management program, display position data 87 for determining the display position of the advertisement, and evaluation information 88 for determining the efficiency of the advertisement, etc.

Now, the procedure for displaying advertisement data, which has the above mentioned data format, will be described in conjunction with Fig. 5.

After executing a series of processing steps for receiving advertisements, that is, a communication connection step S30, a user authentication step S31, a display setting step S32 for the sub display 72, and step S32 of displaying advertisement data on the sub display 72, the advertisements displayed on the sub display 72 are in a state waiting for an input signal from the user (Step S34).

When the user inputs a clicking signal (Step S36), the key value of the input signal and the object selected by the input signal are first analyzed in accordance with a calling program. Where the selected object has text calling data containing a web code, that is, link data, the web browser is loaded on the main display 74 of the user computer 10 (Step S37). A web page linked by the link data is then loaded (Step S38).

On the other hand, where the selected object contains a sub menu without having the web code, necessary items of the sub menu are sequentially selected to execute a query procedure in a sequential fashion. After the completion of the query procedure, the loading of the web page or a desired program on the main display 74 of the user computer 10 is executed (Steps S361, S362, S3611, S3612, and S3613).

Figs. 6 and 8 are flow charts respectively illustrating an advertising task executing procedure and an advertisement displaying procedure conducted by the operator of the system server 30. As shown in Fig. 6, requests for advertisements from advertisers are first collected (Step S40). Thereafter, a plan is established with respect to advertising schedule, display size and display position for each requested advertisement (Step S41). Subsequently, a desired design is made for each requested advertisement, and then stored in the advertisement DB 34 (Step S42). Where there is updated information, the control procedure returns to step S42 in order to execute updating of advertisement data based on the updated information (Step S43).

Where it is determined at step S43 that there is no updated information, the control procedure proceeds to step S43. At step S43, it is determined whether or not a desired advertisement is to be displayed. This determination is made in accordance with a program previously set. Where the advertisement is to be displayed, its advertisement data is transmitted to the user (subscriber) linked to the system server 30 (Step S45). As mentioned above, the transmitted advertisement data is then stored in the user computer 10 while being periodically displayed on the sub display 72 of the user computer 10 at intervals of a set time.

The display condition of advertisement data on the sub display 72 is determined in accordance with an advertising schedule transmitted from an associated advertiser along with the advertisement data. That is, the advertisement data is displayed under the display condition varying periodically in accordance with the advertising schedule.

Fig. 8 is a flow chart illustrating a method in which users are sorted into different groups in terms of properties in order to sort advertisements into different groups respectively meeting those user groups in such a fashion that advertisement data is transmitted only to an associated user group, thereby enhancing the advertising efficiency of advertisements.

In accordance with this method, the system server 30 is first connected to the Internet is first executed (Step S50). Thereafter, the system server 30 then has access to the advertiser servers 40 and content providing servers 44 via the web server 20 (Step S51). The system server 30 then collects requests for advertisements from the advertisers (Step S52). The advertisement server 33 is then connected to the server host (Step 53). Under this condition, the control procedure proceeds to step S54. At step 54, advertisements are sorted into those respectively meeting user groups previously set, based on the contents of those advertisements. Thereafter, each advertisement is transmitted to an associated user group or user groups under the condition in which the display period, type, and position of each advertisement are determined (Step S55).

The advertisement data transmitted to the user is then displayed on the sub display 72 (Step S56). It is then determined whether or not the display period is to be varied and whether or not the advertisement content is varied. Where the display period is varied, the control procedure returns to step S55 in order to vary the display period (Step S57). Where the advertisement content is varied, the control procedure returns to the advertisement sorting step S58.

The sorting of users in terms of properties may be based on the results of an analysis made for particular advertisement data in terms of the number of clicking times, the frequency of news search, and the frequency of utilization of contents.

Fig. 9 illustrates the configuration of a window displayed on the sub display 72 of the monitor 70 electrically connected to the user computer 10. As shown in Fig. 9, the sub display 72 is provided at an upper left window portion thereof with a home page banner 90. The sub display 72 is also provided at an upper central window portion thereof with a video window 91 for displaying a video advertisement or TV signals transmitted via the TV/radio card 58.

A group of banners 92 are arranged at the left window portion of the sub display 72. Each of the banners 92 serves to link the user computer 10 to an associated information providing server when it is clicked one time. The sub display 72 is also provided at the right window portion thereof with a plurality of link means 94 respectively having link addresses given for different services. Above the link means 94, a clock window 93 is arranged which serves to display a clock and a calendar. A URL input window 97 is arranged beneath the video window 91. The URL input window 97 allows the user to directly input an Internet URL address.

A media manipulation panel 96 is arranged between the video window 91 and the URL input window 97. The media manipulation panel 96 serves to link the user computer 10 to a video file control panel or a web broadcasting center. Arranged beneath the URL input window 97 is an advertisement window 98 which has a

display size relatively larger than each banner 92 displayed at the left window portion of the sub display 92 and displays a video advertisement or a still image advertisement. An event window 95 is arranged at the right side of the advertisement window 98 in order to provide information about network games, real-time games, or events.

A plurality of abbreviation icons 99 respectively associated with programs frequently used by the user are arranged beneath the advertisement window 98. When a selected one of the abbreviation icons 99 is clicked, an associated program is executed, and its content is displayed on the main display 74. Arranged beneath the window of the abbreviation icons 99 is a news window 100 which displays news provided by the news server 31 in such a fashion that it is scrolled from side to side or in an upward direction.

The arrangement of diverse windows displayed on the sub display 72 may be appropriately varied, if necessary.

Now, using examples of the windows displayed on the sub display 72 will be described in detail, in conjunction with Figs. 10 and 11.

Fig. 10 is a view illustrating display examples associated with a selected one of the advertisement banners 92 arranged beneath the home page banner 90. For instance, where the "MBC(Munhwa Broadcasting Corp.)" banner 92, which is arranged at the upper left window portion of the sub display 72, is clicked, a home page 92-1 of "MBC" linked to the user computer 10 via the web browser is displayed on the main display 74.

Fig. 11 is a view illustrating a maximum video window displayed on the main display 72. When the video

window 91 on the sub display 72 is clicked, video of the same content as that of the video window 91 is displayed on the main display 74 in a state enlarged to have a maximum display size.

The video displayed on the video window 91 is supplied from the media server 35. Alternatively, general over-the-air TV signals or cable TV signals, which are received via the TV/radio receiver card 58, may be displayed on the video window 91. In the latter case, the TV/radio receiver card 58 is operatively connected to the image processing unit 60 of the user computer 10.

In order to maximize the efficiency of using advertisements and other information provided in accordance with the present invention, it is necessary to increase the number of users who use the monitor configured in accordance with the present invention.

This requirement may be satisfied using the following scheme.

First, a cartel may be established which consists of a system management company operating the system server 30, communication network providers, that is, Internet service providers (ISPs), each operating a communication network to the Internet, monitor manufacturers producing monitors configured in accordance with the present invention, and advertisers requesting for advertisements to be displayed on the sub display 72 of the monitor 70.

After the establishment of the cartel, funds are raised from investors. The monitor manufacturers are recommended to manufacture monitors 70 of the present invention. The manufactured monitors 70 are then distributed to users without any charge or while giving

the users a subsidy or applying a discount or no charge to the user in association with the charge for communication services, in order to collect a maximum number of user groups using the monitor 70.

The success of the project, to which the present invention is applied, depends on the number of user groups using the monitor 70. Accordingly, it is important to distribute a maximum number of monitors 70 to users. Although this may be more easily achieved by distributing monitors 70 to users without any charge, there is a problem in this case in that excessively high initial investment costs are required. In this regard, the services to be provided to users may be qualitatively and quantitatively controlled in accordance with the prosecution of the project.

Under the condition in which a maximum number of users are collected, it is possible to fix a maximum charge for advertisement to be paid by advertisers. Accordingly, an increase in gains is obtained which may contribute to improving the quality of services for users.

That is, it is possible to improve the quality of advertisements displayed on the sub display 72 and information supplied from information providing companies linked to diverse link means. Such an improvement in the quality of information may result in a collection of an increased number of user groups.

Therefore, the improvement in the services provided to users results in an increase in gains.

Industrial Applicability

As apparent from the above description, the present invention provides a system and method for

Internet advertisement using a monitor including a main display and a sub display arranged separately from the main display and adapted to always display advertisements. The Internet advertising system continuously displays diverse advertisements in so far as it is in an ON state, so that it eliminates limitations in terms of time and space, thereby providing a maximum advertising efficiency. The Internet advertising system and method provide to users a new working environment capable of enhancing work efficiency. There is also an advantage in that necessary information can be easily acquired.

The Internet advertising system and method also provide an easy subscriber management function and an easy broadcasting management function which make it possible to achieve a selective advertising to particular users at a particular time. Thus, the intentions of advertisers can meet the demands of users. Accordingly, there is an advantage in that an unnecessary increase in advertising costs is eliminated. Also, it is possible to provide more beneficial information to users.

Although the preferred embodiments of the invention have been disclosed for illustrative purposes, those skilled in the art will appreciate that various modifications, additions and substitutions are possible, without departing from the scope and spirit of the invention as disclosed in the accompanying claims.

Claims

1. An Internet advertising system comprising:

a plurality of user computers configured to have access to the Internet, each of the user computer including a monitor, which serves as display means and consists of a main display for displaying a main processing content of a program used by a user, and a sub display for displaying a graphical user interface environment of the user computer, a plurality of link means adapted to allow the user computer to be linked to web pages respectively associated with the link means, and an image processing unit for driving the main display and the sub display;

a system server for providing diverse information and diverse link means to each of the user computers via the Internet to display the information on the sub display along with information provided via the link means; and

a plurality of information providing servers connected to the system server, each of the information providing servers being an object, by which each of the user computers is linked to the link means.

2. The Internet advertising system according to claim 1, wherein the system server comprises:

a news server for accessing web sites of news providers to search for news;

a news database for storing news generated from the news server;

an advertisement server for supplying, to each of the user computers, data of advertisements displayed on the sub display of the user computer;

an advertisement database for storing advertisement

data supplied from the advertisement server;

a media server for providing audiovisual data to be displayed on or selected via the sub display;

a media database connected to the media server and adapted to provide media data to the media server;

a web server for connecting the system server to the Internet and for operating a home page for users;

a home page database for storing data required for an operation of the home page; and

a subscriber database for storing information about subscribers who are registered ones of users connected via respective user computers thereof to the system server.

3. The Internet advertising system according to claim 1, wherein the image processing unit is adapted to simultaneously drive both the main display and the sub display included in each of the user computers.

4. The Internet advertising system according to claim 1, further comprising:

a separate image processing unit for driving the sub display included in each of the user computers.

5. The Internet advertising system according to claim 1, wherein each of the user computers further includes a TV/radio receiver module for receiving TV broadcasting signals and radio broadcasting signals.

6. The Internet advertising system according to claim 1, wherein the monitor of each of the user computers further includes a camera adapted to pick up an image of an object, and a microphone for inputting a

sound to the user computer.

7. The Internet advertising system according to claim 1, wherein the plurality of information providing servers include a plurality of advertiser servers for providing advertisements, a plurality of content providing servers for providing content information, and a plurality of databases respectively associated with the advertiser servers.

8. The Internet advertising system according to claim 1, wherein the main and sub displays of the monitor in each of the user computers are constituted by a combination of a cathode ray tube and an liquid crystal display, a combination of liquid crystal displays, or a combination of cathode ray tubes.

9. An Internet advertising method comprising the steps of:

constructing a network using user computers each including a monitor consisting of a sub display adapted to display advertisement data and a main display adapted to display a main processing content of the associated user computer, a plurality of information providing servers adapted to provide advertisement data and content information, and a system server adapted to transmit the advertisement data and content information, provided from the information providing servers, to the user computers, thereby allowing the transmitted data and information to be displayed on respective sub displays of the user computers;

registering diverse information and diverse advertisement data, to be displayed on the sub display

included in each of the user computers, supplied from the information providing servers;

registering, as subscribers, users having access to the system server; and

transmitting the registered advertisement data to the user computers, thereby displaying the advertisement data on respective sub displays of the user computers.

10. The Internet advertising method according to claim 9, wherein the step of transmitting the registered advertisement data to the user computers, thereby displaying the advertisement data on respective sub displays of the user computers further comprises the steps of storing the advertisement data in each of the user computers, and loading and displaying the stored advertisement data in a communication off-line state of the associated user computer, so that an advertising can be conducted not only in an on-line state, but also in an off-line state.

11. The Internet advertising method according to claim 9, wherein the advertisement data, which is transmitted to each of the user computers and displayed on the sub display of the user computer, has a format consisting of a basic part containing basic data including data for advertisement, and an extension part containing information indicative of properties of the advertisement data.

12. The Internet advertising method according to claim 11, wherein:

the basic part of the advertisement data contains an advertisement code indicative of a registered code of

the advertisement data, the data for advertisement including a picture or characters to be practically displayed on the sub display, and link data for calling a web page for providing detailed information associated with the advertisement data in response to an associated input signal from a user; and

the extension part of the advertisement data contains time data providing a reference for transmission of an advertisement schedule management program, display position data for determining a display position of the advertisement data, and evaluation information for determining an efficiency of the advertisement data.

13. The Internet advertising method according to claim 9, wherein the step of transmitting the registered advertisement data to the user computers, thereby displaying the advertisement data on respective sub displays of the user computers further comprises the step of, when a user selects one of the objects displayed on the sub display of the associated user computer, displaying a selected one of a web page or data linked to the selected object.

14. The Internet advertising method according to claim 13, wherein the step of selecting one of the objects on the sub display comprises the steps of:

if the user inputs a clicking signal, then analyzing a key value of the input signal and the object selected by the input signal in accordance with a calling program;

if the selected object has text calling data containing a web code, that is, link data, then loading

a web browser on the main display of the associated user computer;

loading a web page linked by the link data on the main display of the associated user computer;

if the selected object contains a sub menu without having the web code, then sequentially selecting necessary items of the sub menu to execute a query procedure in a sequential fashion; and

executing the loading of the web page or loading a desired program on the main display of the associated user computer.

15. The Internet advertising method according to claim 9, wherein the step of registering advertisement data supplied from the information providing servers comprises the steps of:

collecting requests for advertisements from advertisers;

establishing a plan with respect to an advertising schedule, a display size and a display position for each requested advertisement;

making a desired design for each requested advertisement, and then storing the designed advertisement;

if there is updated information, then executing updating of data of the advertisement based on the updated information, and transmitting the updated advertisement data to users;

storing the transmitted advertisement data in respective user computers of the users while displaying the advertisement data on respective sub displays of the user computers at intervals of a predetermined time; and

repeating the above processing steps.

16. The Internet advertising method according to claim 9, wherein the step of transmitting the registered advertisement data to the user computers, thereby displaying the advertisement data on respective sub displays of the user computers further comprises the steps of sorting the users into user groups in terms of properties, and transmitting the advertisement data to selected ones of the user groups meeting the advertisement data.

17. The Internet advertising method according to claim 16, wherein the step of sorting the users into user groups in terms of properties is carried out based on results of an analysis made for particular advertisement data in terms of the number of clicking times, the frequency of news search, and the frequency of utilization of contents.

18. The Internet advertising method according to claim 9, wherein the advertisement data, which is transmitted to each of the user computers and displayed on the sub display of the user computer, contains data of display windows each adapted to be displayed on the sub display in a state set in terms of display content, display position, and display size, and display period.

19. The Internet advertising method according to claim 18, wherein the display windows, which are adapted to be displayed on the sub display in a state set in terms of display content, display position, and display size, and display period, comprise:

a video window for displaying a video advertisement

or TV signals;

a group of banners each adapted to link the user computer to an associated information providing server when it is clicked one time;

a plurality of link means respectively having link addresses given for different services;

a clock window adapted to display a clock and a calendar;

a URL input window adapted to allow the user to directly input an Internet URL address;

an advertisement window having a display size relatively larger than each of the banners, the advertisement window serving to display a video advertisement or a still image advertisement;

an event window adapted to provide information about network games, real-time games, or events;

a plurality of abbreviation icons respectively associated with programs frequently used by the user, each of the abbreviation icons serving to execute an associated one of the programs in response to a selection thereof made by the user, and to display a content of the executed program on the main display of the user computer; and

a news window adapted to display news in such a fashion that it is scrolled.

20. The Internet advertising method according to claim 9, wherein the advertisement data transmitted to each of the user computers is always displayed on the sub display of the user computer while being periodically varied in accordance with an advertisement schedule management program selected by an advertiser associated with the advertisement data.

21. The Internet advertising method according to claim 9, wherein the advertisement data, which is registered at the step of registering advertisement data supplied from advertisers, is updated at intervals of a predetermined time set by an associated one of the advertisers or every time an event is generated, and then registered.

22. An Internet advertising method wherein advertisements supplied from a plurality of information providing servers adapted to provide advertisement data or contents are transmitted, via the Internet, to a plurality of user computers each including a main display for displaying a main processing content of a program, and a sub display for displaying advertisement data, and displayed on respective sub displays of the user computers.

FIG.1

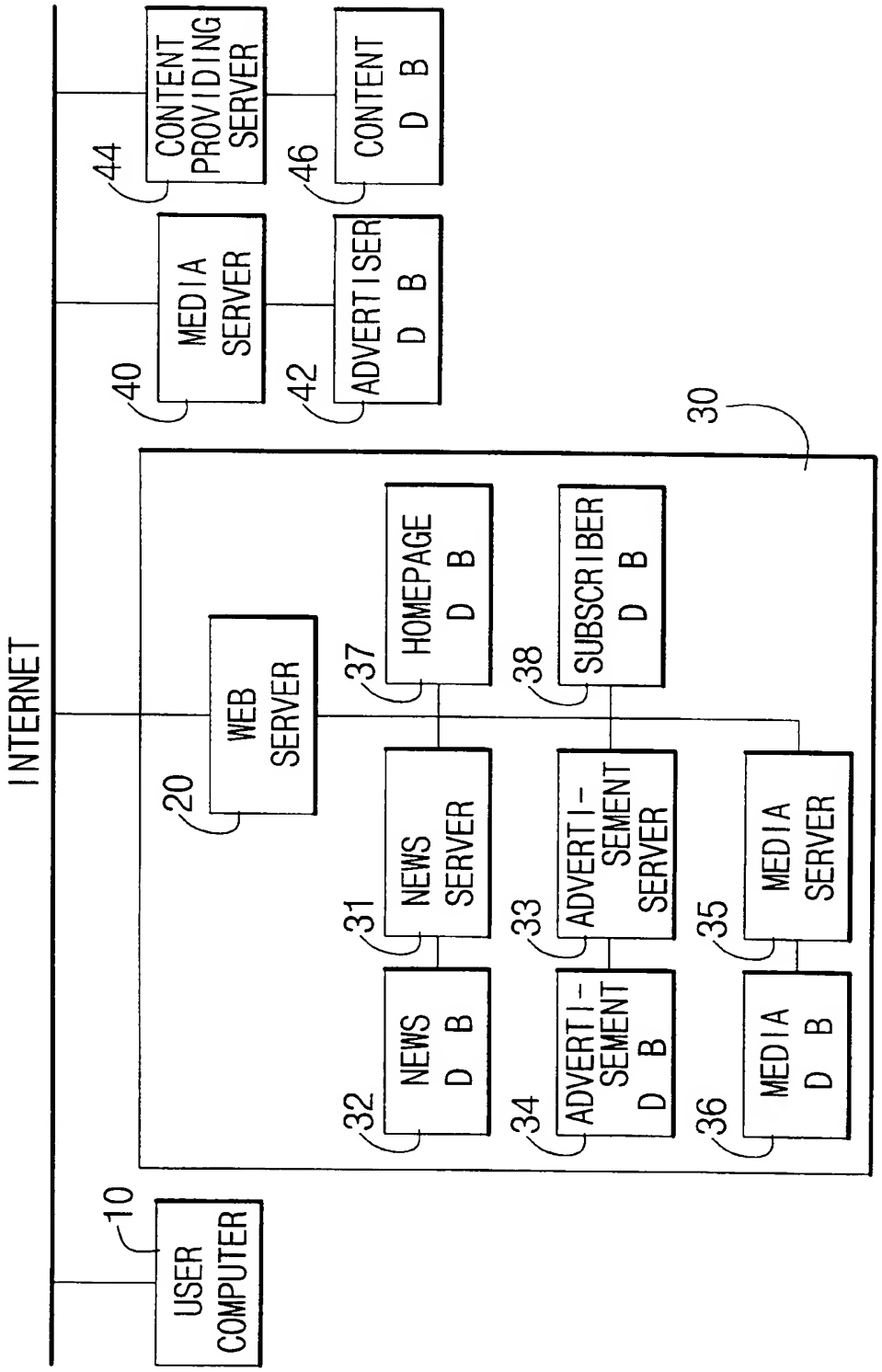
INTERNET
USER COMPUTER
10
WEB SERVER
20
30
NEWS SERVER
31
NEWS D B
32
ADVERTI-SEMENT SERVER
33
ADVERTI-SEMENT D B
34
MEDIA SERVER
35
MEDIA D B
36
HOMEPAGE D B
37
SUBSCRIBER D B
38
MEDIA SERVER
40
ADVERTISER D B
42
CONTENT PROVIDING SERVER
44
CONTENT D B
46

FIG.2

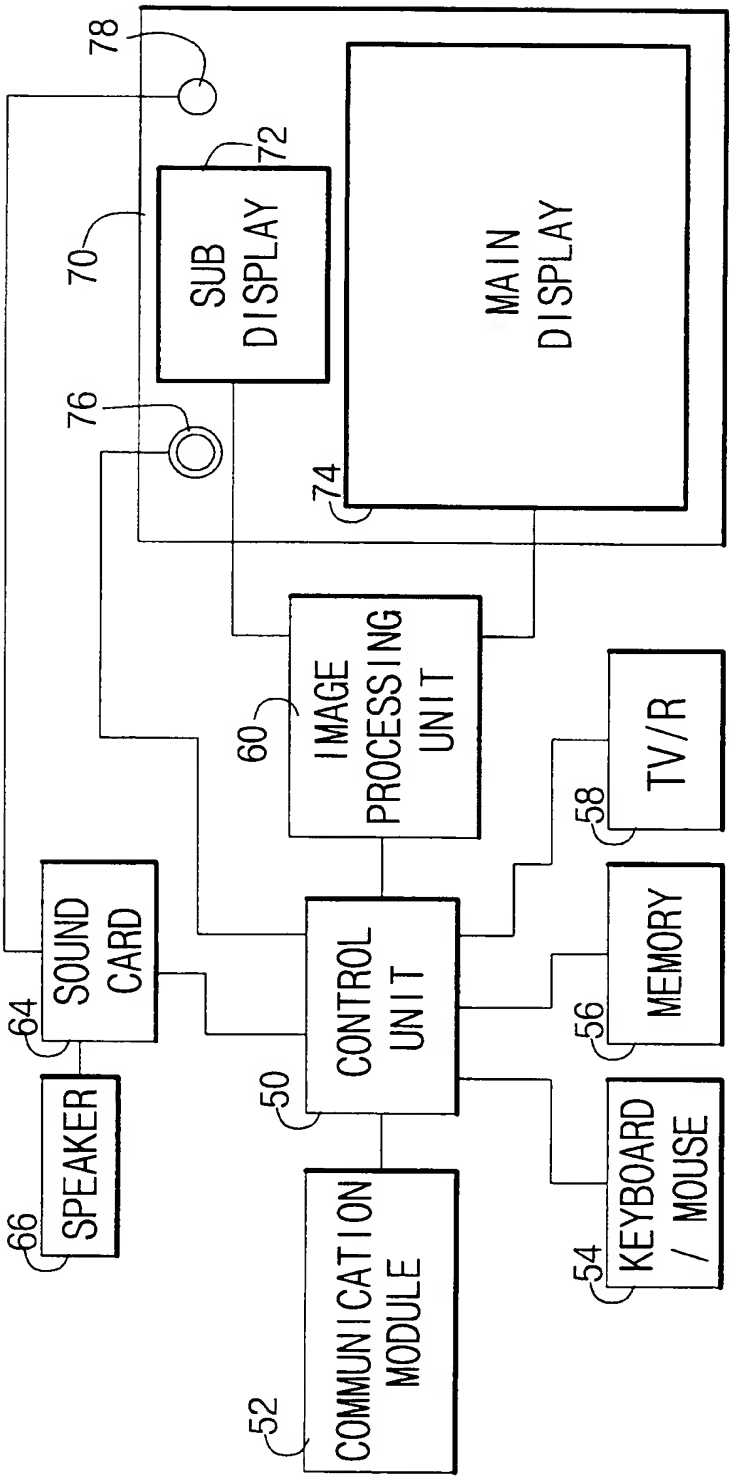
78
72
70
SUB DISPLAY
MAIN DISPLAY
76
74
IMAGE PROCESSING UNIT
60
TV/R
58
SOUND CARD
64
CONTROL UNIT
MEMORY
56
50
SPEAKER
66
KEYBOARD / MOUSE
54
COMMUNICATION MODULE
52

FIG.3

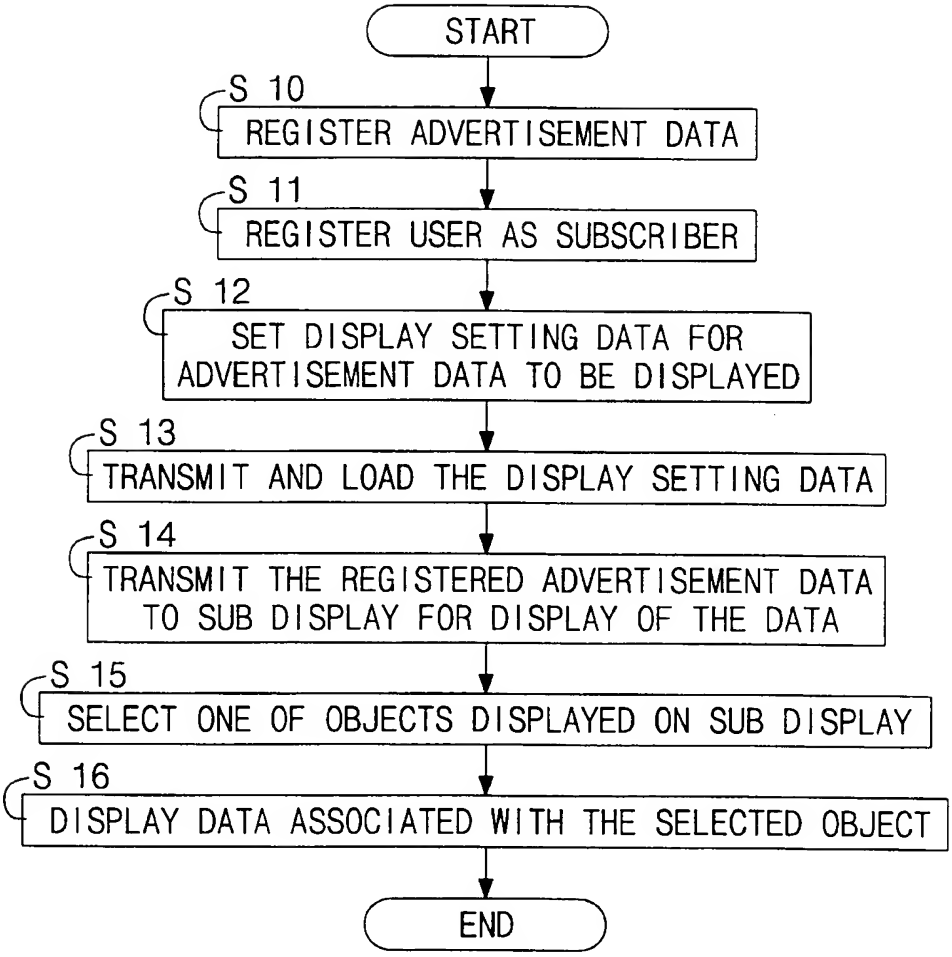
START
S 10
REGISTER ADVERTISEMENT DATA
S 11
REGISTER USER AS SUBSCRIBER
S 12
SET DISPLAY SETTING DATA FOR ADVERTISEMENT DATA TO BE DISPLAYED
S 13
TRANSMIT AND LOAD THE DISPLAY SETTING DATA
S 14
TRANSMIT THE REGISTERED ADVERTISEMENT DATA TO SUB DISPLAY FOR DISPLAY OF THE DATA
S 15
SELECT ONE OF OBJECTS DISPLAYED ON SUB DISPLAY
S 16
DISPLAY DATA ASSOCIATED WITH THE SELECTED OBJECT
END

FIG.4

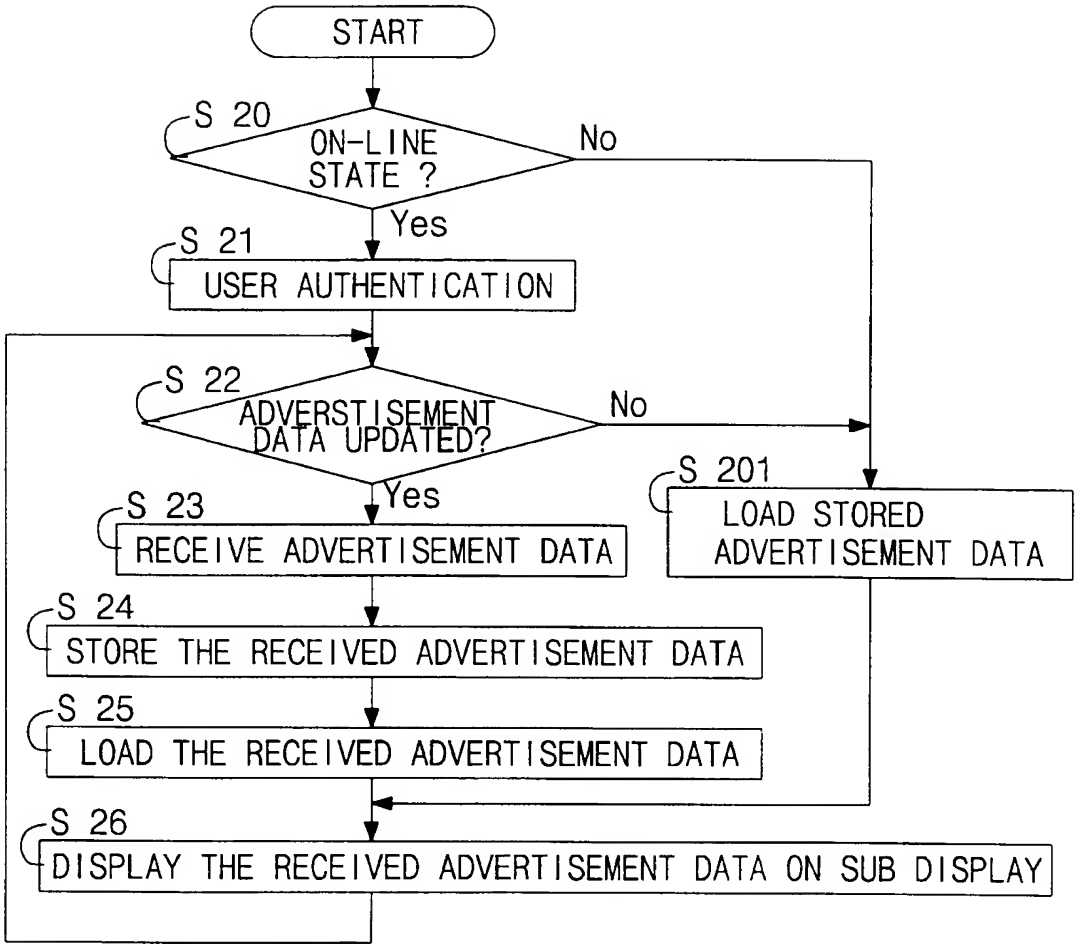
START
S 20
ON-LINE STATE ?
No
Yes
S 21
USER AUTHENTICATION
S 22
ADVERSTISEMENT DATA UPDATED?
No
Yes
S 23
RECEIVE ADVERTISEMENT DATA
S 201
LOAD STORED ADVERTISEMENT DATA
S 24
STORE THE RECEIVED ADVERTISEMENT DATA
S 25
LOAD THE RECEIVED ADVERTISEMENT DATA
S 26
DISPLAY THE RECEIVED ADVERTISEMENT DATA ON SUB DISPLAY

FIG.5

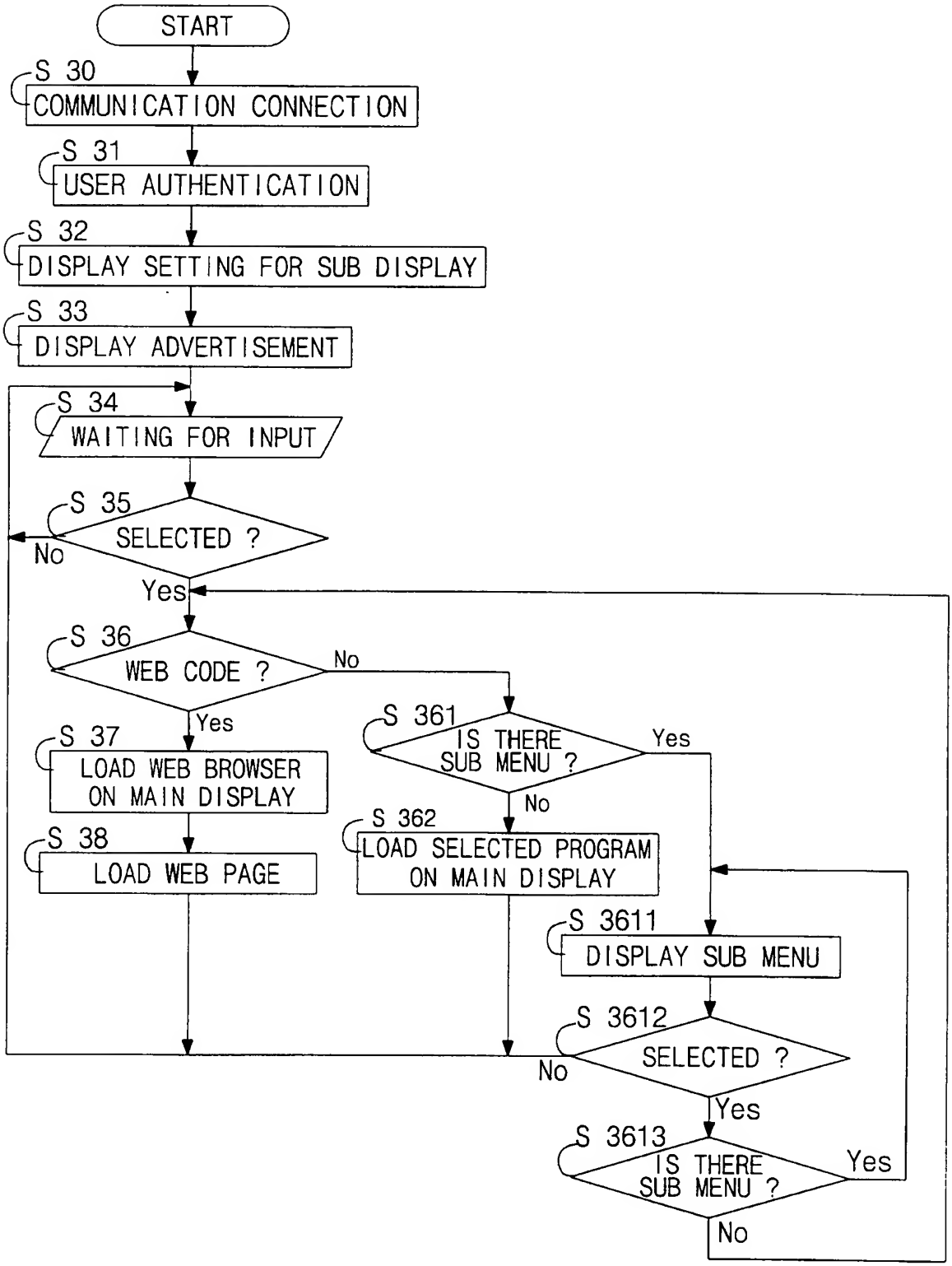
START
S 30
COMMUNICATION CONNECTION
S 31
USER AUTHENTICATION
S 32
DISPLAY SETTING FOR SUB DISPLAY
S 33
DISPLAY ADVERTISEMENT
S 34
WAITING FOR INPUT
S 35
SELECTED ?
No
Yes
S 36
WEB CODE ?
No
Yes
S 37
LOAD WEB BROWSER ON MAIN DISPLAY
S 38
LOAD WEB PAGE
S 361
IS THERE SUB MENU ?
Yes
No
S 362
LOAD SELECTED PROGRAM ON MAIN DISPLAY
S 3611
DISPLAY SUB MENU
S 3612
SELECTED ?
No
Yes
S 3613
IS THERE SUB MENU ?
Yes
No

FIG.6

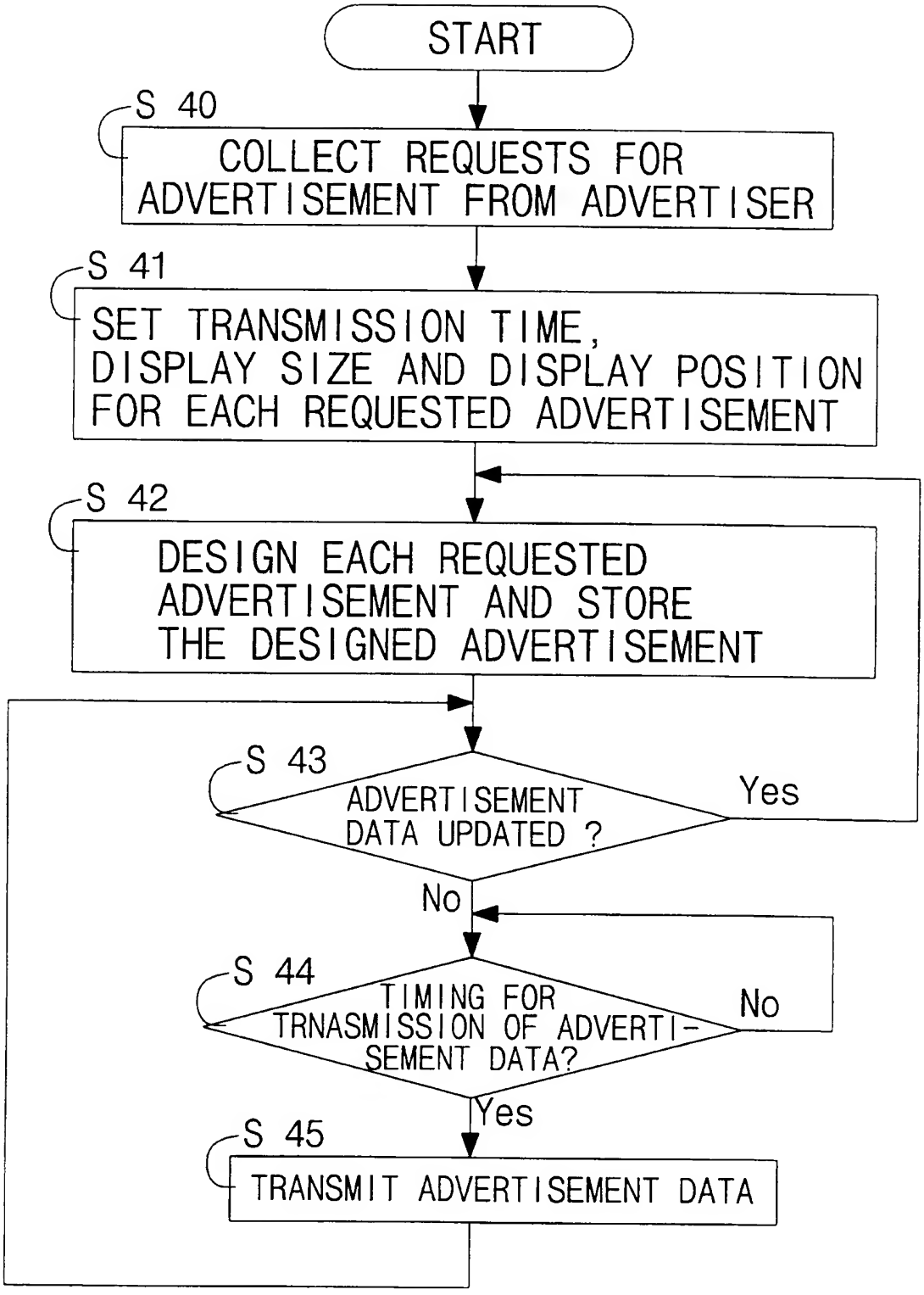
START
S 40
COLLECT REQUESTS FOR ADVERTISEMENT FROM ADVERTISER
S 41
SET TRANSMISSION TIME, DISPLAY SIZE AND DISPLAY POSITION FOR EACH REQUESTED ADVERTISEMENT
S 42
DESIGN EACH REQUESTED ADVERTISEMENT AND STORE THE DESIGNED ADVERTISEMENT
S 43
ADVERTISEMENT DATA UPDATED ?
Yes
No
S 44
TIMING FOR TRNASMISSION OF ADVERTI-SEMENT DATA?
No
Yes
S 45
TRANSMIT ADVERTISEMENT DATA

FIG.7

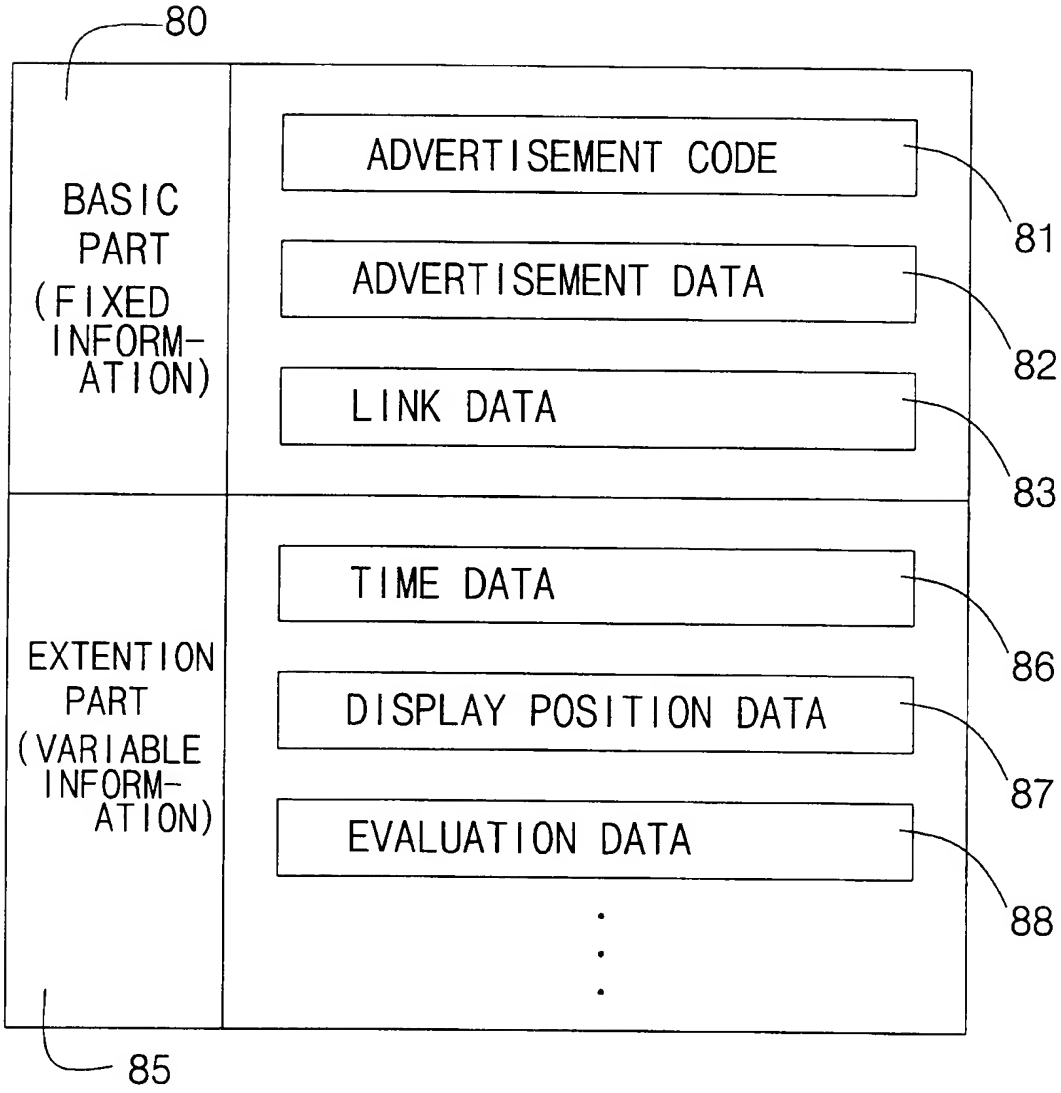
80
BASIC PART (FIXED INFORM-ATION)
ADVERTISEMENT CODE
ADVERTISEMENT DATA
LINK DATA
81
82
83
EXTENTION PART (VARIABLE INFORM-ATION)
TIME DATA
DISPLAY POSITION DATA
EVALUATION DATA
86
87
88
85

FIG.8

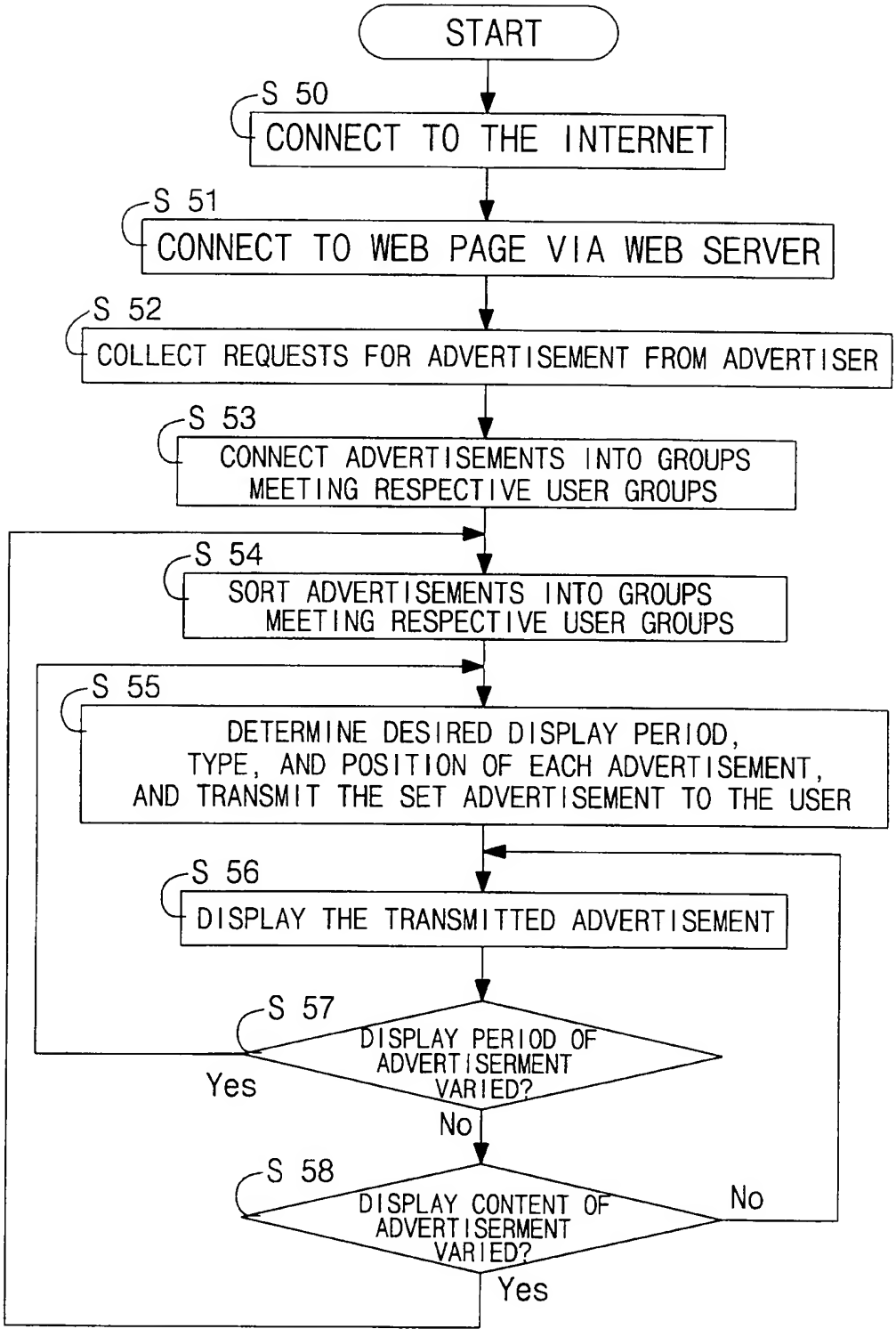
START
S 50
CONNECT TO THE INTERNET
S 51
CONNECT TO WEB PAGE VIA WEB SERVER
S 52
COLLECT REQUESTS FOR ADVERTISEMENT FROM ADVERTISER
S 53
CONNECT ADVERTISEMENTS INTO GROUPS MEETING RESPECTIVE USER GROUPS
S 54
SORT ADVERTISEMENTS INTO GROUPS MEETING RESPECTIVE USER GROUPS
S 55
DETERMINE DESIRED DISPLAY PERIOD, TYPE, AND POSITION OF EACH ADVERTISEMENT, AND TRANSMIT THE SET ADVERTISEMENT TO THE USER
S 56
DISPLAY THE TRANSMITTED ADVERTISEMENT
S 57
DISPLAY PERIOD OF ADVERTISERMENT VARIED?
Yes
No
S 58
DISPLAY CONTENT OF ADVERTISERMENT VARIED?
No
Yes

FIG.9

90
91
93
92
94
97
95
99
100
96
TOPHEAD
6월09일 오후08:53
CJSHOP
LG eshop
CNN.com
E-mail

FIG.10

92
92-1
TOPHEAD
CJSHOP
http://www.mbc.co.kr/
NETOP - Casting
NETOP - Magazine
MBC NEWS
MBC
SEARCH
About MBC
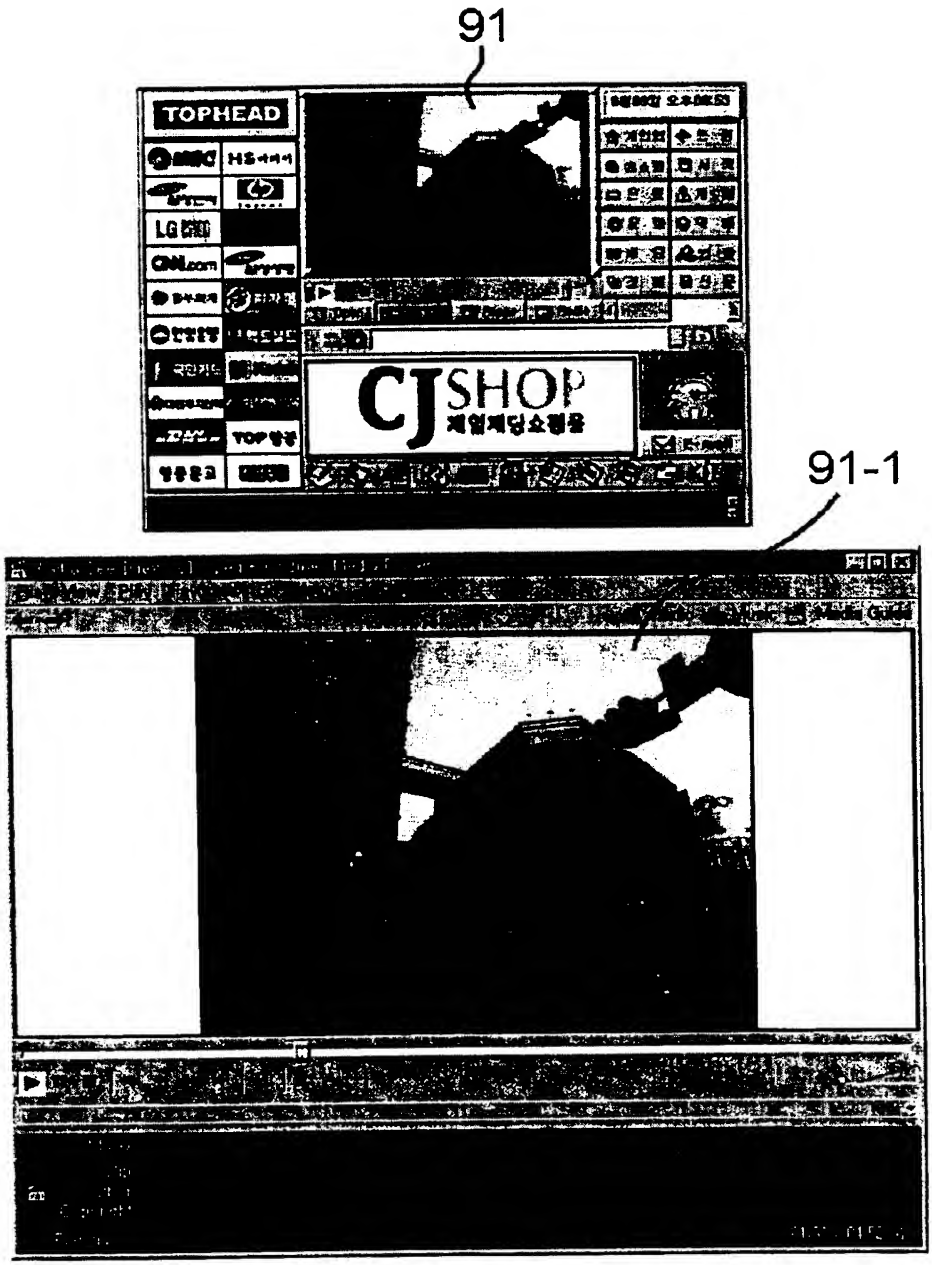
FIG.11